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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,716	04/13/2001	Yuri Ton	00/21144	4965

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EXAMINER

NGUYEN, SON T

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/833,716	TON ET AL.
	Examiner Son T. Nguyen	Art Unit 3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 December 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 and 9-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7 and 9-55 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claim 8 has been canceled. Pending claims are 1-7,9-55.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 19,26,46** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For claim 19, line 2, the phrases "said second unharvested plant" and "said at least one selection criterion" lack prior antecedent basis. For claim 26, line 2, the phrase "said second unharvested plant" lacks prior antecedent basis. For claim 46, line 2, the phrase "said second unharvested plant" lacks prior antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1,3-7,9-15,17-19,21-27** are rejected under 35 U.S.C. 102(b) as being anticipated by Huguet et al. (US 4638594).

For claim 1, Huguet et al. disclose a method of assessing a state of a field grown crop (col. 1, lines 9-12 & col. 2, lines 11-37) comprising the steps of collecting data pertaining to at least one plant derived parameter over a predetermined portion of the

growth cycle of the crop (col. 2, lines 38-53, col. 3, line 9, col. 5 & lines 57-48), wherein the collecting is effected by at least one sensor positioned on a plant of the crop (see figures 5 & 6) and whereas the crop is unharvested (col. 2, lines 28-31 & col. 5, lines 47-48, the fruits are necessary in the method so the fruits are not harvested yet due to measurement needed for the study); and analyzing the data collected over the portion of the growth cycle to thereby identify a trend in the data over at least a portion of the growth cycle, the trend being indicative of the state of the crop (col. 2, lines 38-68, col. 3, lines 1-14 & col. 5, all lines).

For claim 3, Huguet et al. further disclose correlating the trend to at least one environmental parameter data acquired prior to or during the growth cycle (col. 2, lines 38-57, col. 5, lines 35-40 and lines 64-66).

For claim 4, Huguet et al. further disclose the trend represents changes (positive, negative or no change) in value of the plant's related parameter over the growth cycle (see figures of graphs).

For claim 5, Huguet et al. further disclose graphically representing the data (see figures 1-3).

For claim 6, Huguet et al. further disclose the parameter being stem diameter, fruit growth rate, and stem elongation rate (col. 5, lines 47-48 and col. 7, all lines).

For claim 7, Huguet et al. further disclose the environmental parameter data being soil moisture data (col. 5, lines 64-68).

For claim 9, Huguet et al. further disclose the data is effected by a processing unit (col. 6, lines 44-68).

For claim 10, in addition to the above explanation, Huguet et al. further disclose a user client being in communication with the sensors 11 (col. 6, lines 14-68).

For claim 11, Huguet et al. further disclose the communication between the user client and the sensors is effected via a communication network (col. 6, lines 44-68).

For claim 12, Huguet et al. further disclose a display for displaying the data collected (col. 6, lines 44-68, the computer's monitor).

For claim 13, Huguet et al. further disclose at least one device being in communication with the user client, the device being for modifying the state of the crop (col. 5, lines 63-68, col. 6, lines 14-23 & lines 61-68, the sensors are connected to the control unit which is connected to the irrigation device, thus everything is in communication with each other).

For claim 14, Huguet et al. further disclose the device is an irrigation device (col. 2, lines 58-61 & col. 3, lines 1-7).

For claim 15, see the above explanation.

For claims 17 & 18, Huguet et al. further disclose the plant is effected according to at least one selection criterion such as fruit size (col. 2, lines 28-37 & col. 5, lines 34-40).

For claim 19, Huguet et al. further disclose selecting a 2nd plant (there are two trees 10, so any one of the trees can be 1st and 2nd) and the 2nd is effected according to one selection criterion and that is the fruit size (col. 2, lines 28-37 & col. 5, lines 34-40). Note, same criteria for both trees.

For claims 21-25,27, see the above explanation.

For claim 26, Huguet et al. further disclose the sensor 11 being positioned on the 2nd plant (see figures 5 & 6).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 2,16,20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Huguet et al. (as above) in view of Gardner et al. (US 4755942).

For claim 2, Huguet et al. disclose two trees 10 with the same selection and analytical criteria. However, Huguet et al. do not specifically teach correlating the trend from one tree to the trend of the other tree. Gardner et al. teach a method of assessing the state of a field grown crop with similar steps as that of Huguet et al., and Gardner et al. also mentioned correlating trend of one plant to another plant in the crop (col. 5, lines 1-15, col. 7, lines 38-68, col. 12, all lines, the trends are obtained from a plurality of plants within the whole field and data are entered into the computer 134 for comparison). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the step of correlating trends as taught by Gardner et al. in the method of Huguet et al. in order to study the trend of all plants in the field and to compare conditions affecting each plant. Note, incorporating the correlating step into Huguet et al.'s method does not alter their invention because they

are doing study on at least 2 trees, therefore, it would not make sense just to study only one tree out of a plurality of trees in the field.

For claim 16, as stated in the above explanation, Huguet et al. teach two or more trees 10 with the same steps applied to both selection and analysis of the trees. However, they are silent about comparing the first set of data from one tree to a second set of data of a 2nd tree. as stated in the above, Gardner et al. teach comparing or correlating between a plurality of plants in a field for study of the plants. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the step of comparing data of the 1st tree or plant to a 2nd tree or plant as taught by Gardner et al. in the method of Huguet et al. in order to study the trend of all plants in the field and to compare conditions affecting each plant.

For claim 20, see the above for explanation.

8. **Claim 28** is rejected under 35 U.S.C. 103(a) as being unpatentable over Huguet et al. (as above). In addition to the above, Huguet et al. further disclose co-cultivating a first plant 10 with a crop of a second plant 10 (there are more than one trees in the method of Huguet et al., see col. 7, lines 1-20) and monitoring the plant (same as the analyzing step). However, Huguet et al. are silent regarding the 1st plant being more sensitive to a change in environmental factor than the 2nd plant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a 1st plant with more sensitivity to change in the environment than a 2nd plant in the method of Huguet et al., because it would be a wasteful and costly study on how

environment affect plants if one was to select a perfect plant which is not prone to any environmental effect; thus, one would have to have a control plant and a sensitive plant.

9. **Claims 29,31-42,44,46-52,54,55** are rejected under 35 U.S.C. 103(a) as being unpatentable over Huguet et al. (as above) in view of Weller et al. (US 4647533).

For claim 29, all steps are taught by Huguet et al. as explained in the above. The only limitation that is not taught in Huguet et al. is assessing the state of a greenhouse grown crop. It is notoriously well known in the plant art that a crop can be grown in a greenhouse first and then planted in the field later because some crops at early stage of growth are sensitive to weather condition so it is better to grow them in a greenhouse first until they are strong enough to be planted in the field. For example, such known crops are taught by Weller et al. Weller et al. teach in claim 1 that the crop is grown in a greenhouse first and then planting the crop in the field (claim 1, parts (b) & (c)). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a greenhouse grown crop as taught by Weller et al. in the method of Huguet et al. since it is notoriously well known in the art to grow crop in a greenhouse first and then planted in the field later as taught by Weller et al. because some crops at early stage of growth are sensitive to weather condition so it is better to grow them in a greenhouse first until they are strong enough to be planted in the field.

For claims 31-42,44,46-52,54 see the above explanation.

For claim 55, in addition to the above, Huguet et al. as modified by Weller et al. further disclose co-cultivating a first plant 10 with a crop of a second plant 10 (there are more than one trees in the method of Huguet et al., see col. 7, lines 1-20) and

monitoring the plant (same as the analyzing step). However, Huguet et al. as modified by Weller et al. are silent regarding the 1st plant being more sensitive to a change in environmental factor than the 2nd plant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a 1st plant with more sensitivity to change in the environment than a 2nd plant in the method of Huguet et al. as modified by Weller et al., because it would be a wasteful and costly study on how environment affect plants if one was to select a perfect plant which is not prone to any environmental effect; thus, one would have to have a control plant and a sensitive plant.

10. **Claims 30,43,45,53** are rejected under 35 U.S.C. 103(a) as being unpatentable over Huguet et al. as modified by Weller et al. as applied to claims 29 & 42 above, and further in view of Gardner et al. (as above). See the above explanation for all claims.

Response to Arguments

11. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is (703) 305-0765. The examiner can normally be reached on Monday - Friday from 9:00 a.m. to 5:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon, can be reached at (703) 308-2574. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service at (703) 872-9325. The official fax number is 703-872-9306.



Son T. Nguyen
Primary Examiner, GAU 3643
August 08, 2003